DAIKIN

technical data

air conditioning systems

CDKS/ CDXS-B

Concealed Ceiling, Inverter Controlled Unit

Split Sky Air

Split - Sky Air

ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment

Daikin units comply with the European regulations that guarantee the safety of the product.

Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

Daikin Europe N.V. is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

Specifications are subject to change without prior notice.

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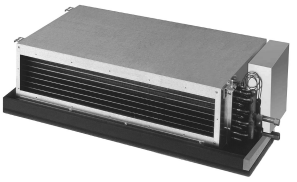
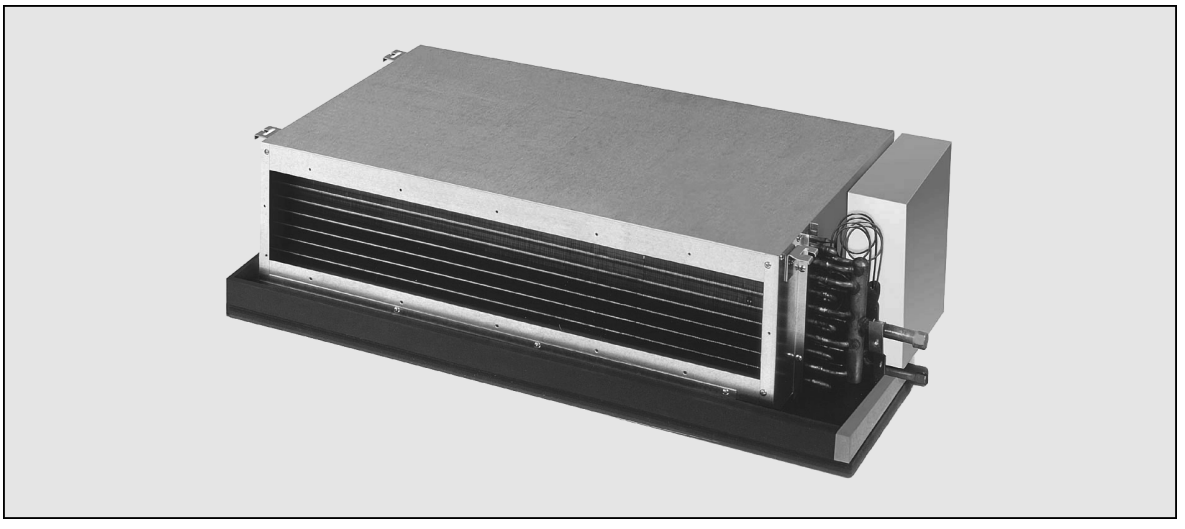


TABLE OF CONTENTS
CDKS/CDXS-B

* For capacity tables, please refer to part II: outdoor units

1 Features

- Lightweight and compact
- Blends unobtrusively with any interior decor: only the suction and discharge grilles are visible
- Leaves maximum floor and wall space for furniture, decoration and fittings
- Fits flush into each ceiling
- Standard suction filter: removes airborne dust particles to ensure a steady supply of clean air.
- Powerful mode can be selected for rapid cooling or heating.
- The home leave operation saves energy during absence.
- Outdoor unit silent operation: silent buttons on the remote control lower the operating sound of the indoor and/or outdoor unit by 3dB(A) each
- Night quiet mode automatically reduces the operating sound of the outdoor unit by 3dB(A) at night. (multi outdoors in cooling mode only)
- Up to 4 indoor units can be connected to 1 Multi outdoor unit. All indoor units are individually controllable with remote control and do not need to be installed in the same room. They operate simultaneously within the same cooling or heating mode.
- The outdoor unit can be installed on a roof or terrace or placed against an outside wall
- Outdoor units are fitted with a swing compressor, renowned for its low noise and energy efficiency.
- The remote control has a 24 hour timer
- The indoor unit also has a start/stop button mounted on the front panel
- Up to 5 indoor units can be regulated from a single centralised control
- Purpose-designed holder provided for your remote control




Standard


Optional

CDXS


CDKS


Standard


5 steps


MKS/MXS
(cooling application only)

2 Specifications

NOMINAL CAPACITY and NOMINAL INPUT							
For indoor units only:							
INDOOR UNITS				**CDKS25BVMB**	**CDKS35BVMB**	**CDKS50BVMB**	**CDKS60BVMB**
NOMINAL INPUT	Cooling	nominal	kW	0.085	0.085	0.085	0.095

For combination indoor + outdoor units (air cooled):							
INDOOR UNITS				**CDKS25BVMB**	**CDKS35BVMB**	**CDKS50BVMB**	**CDKS60BVMB**
OUTDOOR UNITS				**2MKS40/3MKS50B/4MKS58/75/90B**		**4MKS58/75/90B**	**4MKS75/90B**
NOMINAL CAPACITY (2-3)	Cooling (1)	min.~ nom.~ max.	kW	For more information, see chapter MKS-B			
NOMINAL INPUT	Cooling	min.~ nom.~ max	kW				
EER							
ENERGY LABEL	Cooling						
ANNUAL ENERGY CONSUMPTION	Cooling		kWh				

TECHNICAL SPECIFICATIONS							
For indoor units only:							
INDOOR UNITS				**CDKS25BVMB**	**CDKS35BVMB**	**CDKS50BVMB**	**CDKS60BVMB**
DIMENSIONS	Unit	H	mm	260			
		W	mm	900			
		D	mm	580			
WEIGHT	Unit		kg	23		24	
SOUND LEVEL	Sound pressure (Cooling) (4)	high	dB(A)	39	39	42	44
		low	dB(A)	36	36	39	41
		super low	dB(A)	33	33	36	38
	Sound power (Cooling) (5)	high	dB(A)	55	55	58	60
FAN	Air flow rate (Cooling)	high	m^3/min	12.7	13.0	13.0	14.5
		low	m^3/min	10.7	11.0	11.0	11.5
		super low	m^3/min	9.0	9.3	10.1	10.2
	Speed	steps		5 steps, silent and auto			
		high	rpm	940	960	1,000	1,120
		medium	rpm	875	895	930	1,015
		low	rpm	810	830	860	910
		super low	rpm	720	740	800	820
	Type			Sirocco fan			
	Motor output		W	47	47	47	47
HEAT EXCHANGER	Type			ML fin, Ø 7Hi-HA tube			
	Rows x stages x fin pitch		mm	2 x 10 x 1.75	2 x 10 x 1.75	3 x 10 x 1.75	3 x 10 x 1.75
AIR FILTER				Removable/washable/mildew proof			
TEMPERATURE CONTROL				Microprocessor control			
PIPING CONNECTIONS		liquid	mm	ϕ6.4			
		gas	mm	ϕ9.5		ϕ12.7	
		drain	mm	Ø 27.2 (3/4B)			
INSULATION MATERIAL	Heat insulation tape			Both liquid and gas pipes			

For outdoor units	Multi model application	See chapter MKS-B

2 Specifications

2

ELECTRICAL SPECIFICATIONS

For indoor units only:				CDKS25BVMB	CDKS35BVMB	CDKS50BVMB	CDKS60BVMB
CURRENT	Nominal running current	cooling	A	0.40	0.40	0.40	0.45
	Max. running current	cooling	A	See chapter MKS-B Electrical data			

For combination indoor units + outdoor units:				CDKS25BVMB	CDKS35BVMB	CDKS50BVMB	CDKS60BVMB
				2MKS40/3MKS50B/4MKS58/75/90B		4MKS58/75/90B	4MKS75/90B
CURRENT	Nominal running current	cooling	A	See chapter MKS-B: Electrical data			
	Max. running current	cooling	A				
	Starting current	cooling	A				

For indoor units only:			CDKS25BVMB	CDKS35BVMB	CDKS50BVMB	CDKS60BVMB
POWER SUPPLY			VM	VM	VM	VM
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		1~	1~	1~	1~
	Frequency	Hz	50	50	50	50
	Voltage	V	230	230	230	230

NOTES

1 Nominal cooling capacities are based on: indoor temperature 27°CDB/19°CWB * outdoor temperature 35°CDB * refrigerant piping length: 7.5m * level difference: 0m.

2 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

3 Units should be selected on nominal capacity. Maximum capacity is limited to peak periods.

4 The sound pressure level is measured via a microphone at a certain distance from the unit.
For measuring conditions: please refer to item 6 of this chapter.

5 The sound power level is an absolute value indicating the "power" which a sound source generates.

6 Energy label: scale from A (most efficient) to G (less efficient).

7 Annual energy consumption: based on average use of 500 running hours per year at full load (= nominal conditions)

2 Specifications

NOMINAL CAPACITY and NOMINAL INPUT							
For indoor units only:							
INDOOR UNITS				**CDXS25BVMB**	**CDXS35BVMB**	**CDXS50BVMB**	**CDXS60BVMB**
NOMINAL INPUT	Cooling	nominal	kW	0.085	0.085	0.085	0.095
	Heating	nominal	kW	0.085	0.085	0.085	0.095

For combination indoor + outdoor units (air cooled):							
INDOOR UNITS				**CDXS25BVMB**	**CDXS35BVMB**	**CDXS50BVMB**	**CDXS60BVMB**
OUTDOOR UNITS				**2MXS40/3MXS52/4MXS68/80B**		**3MXS52/4MXSS68/80B**	**4MXS68/80B**
NOMINAL CAPACITY (3-4)	Cooling (1)	min.~nom.~max.	kW	For more information, see chapter MXS-B			
	Heating (2)	min.~nom.~max.	kW				
NOMINAL INPUT	Cooling	min.~nom.~max.	kW				
	Heating	min.~nom.~max.	kW				
EER	Cooling						
COP	Heating						
ENERGY LABEL	Cooling						
	Heating						
ANNUAL ENERGY CONSUMPTION	Cooling		kWh				

TECHNICAL SPECIFICATIONS							
For indoor units only:							
INDOOR UNITS				**CDXS25BVMB**	**CDXS35BVMB**	**CDXS50BVMB**	**CDXS60BVMB**
DIMENSIONS	Unit	H	mm	260			
		W	mm	900			
		D	mm	580			
WEIGHT	Unit		kg	23		24	
SOUND LEVEL	Sound pressure (cooling/heating) (5)	high	dB(A)	39/40	39/40	42/42	44/44
		low	dB(A)	36/36	36/36	39/38	41/40
		super low	dB(A)	33/33	33/33	36/35	38/37
	Sound power (cooling/heating) (6)	high	dB(A)	55/56	55/56	58/58	60/60
FAN	Air flow rate (cooling/heating)	high	m^3/min	12.7/12.7	13.0/13.0	13.0/13.0	14.5/14.5
		low	m^3/min	10.7/10.7	11.0/11.0	11.0/11.0	11.5/11.5
		super low	m^3/min	9.0/9.0	9.3/9.3	10.1/10.1	10.2/10.2
	Speed (cooling/heating)	steps		5 steps, silent and auto			
		high	rpm	940/940	960/960	1,000/1,000	1,120/1,120
		medium	rpm	875/875	895/895	930/930	1,015/1,015
		low	rpm	810/810	830/830	860/860	910/910
		super low	rpm	720/720	740/740	800/800	820/820
	Type			Sirocco fan			
	Motor output		W	47	47	47	47
HEAT EXCHANGER	Type			ML fin, Ø 7Hi-HA tube			
	Rows x stages x fin pitch		mm	2 x 10 x 1.75	2 x 10 x 1.75	3 x 10 x 1.75	3 x 10 x 1.75
AIR FILTER				Removable/washable/mildew proof			
TEMPERATURE CONTROL				Microprocessor control			
PIPING CONNECTIONS		liquid	mm	ϕ6.4			
		gas	mm	ϕ9.5		ϕ12.7	
		drain	mm	ϕ27.2(3/4B)			
INSULATION MATERIAL	Heat insulation tape			Both liquid and gas pipes			

For outdoor units	Multi model application	See chapter MXS-B

2 Specifications

ELECTRICAL SPECIFICATIONS

For indoor units only:				CDXS25BVMB	CDXS35BVMB	CDXS50BVMB	CDXS60BVMB
CURRENT	Nominal running current	cooling	A	0.40	0.40	0.40	0.45
		heating	A	0.40	0.40	0.40	0.45
	Max. running current	cooling	A	See chapter MXS-B: Electrical data			
		heating	A				

For combination indoor units + outdoor units:				CDXS25BVMB	CDXS35BVMB	CDXS50BVMB	CDXS60BVMB
				2MXS40/3MXS52/4MXS68/80B		3MXS52/4MXS68/80B	4MXS68/80B
CURRENT	Nominal running current	cooling	A	See chapter MXS-B: Electrical data			
		heating	A				
	Maximum running current	cooling	A				
		heating	A				
	Starting current	cooling	A				
		heating	A				

For indoor units only:			CDXS25BVMB	CDXS35BVMB	CDXS50BVMB	CDXS60BVMB
POWER SUPPLY			VM	VM	VM	VM
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		1~	1~	1~	1~
	Frequency	Hz	50	50	50	50
	Voltage	V	230	230	230	230

NOTES

1 Nominal cooling capacities are based on: indoor temperature 27°CDB/19°CWB * outdoor temperature 35°CDB * refrigerant piping length: 7.5m * level difference: 0m.

2 Nominal heating capacities are based on: indoor temperature: 20°CDB * outdoor temperature: 7°CDB/6°CWB * refrigerant piping length: 7.5m * level difference 0m.

3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

4 Units should be selected on nominal capacity. Maximum capacity is limited to peak periods.

5 The sound pressure level is measured via a microphone at a certain distance from the unit.
For measuring conditions: please refer to item 6 of this chapter.

6 The sound power level is an absolute value indicating the "power" which a sound source generates.

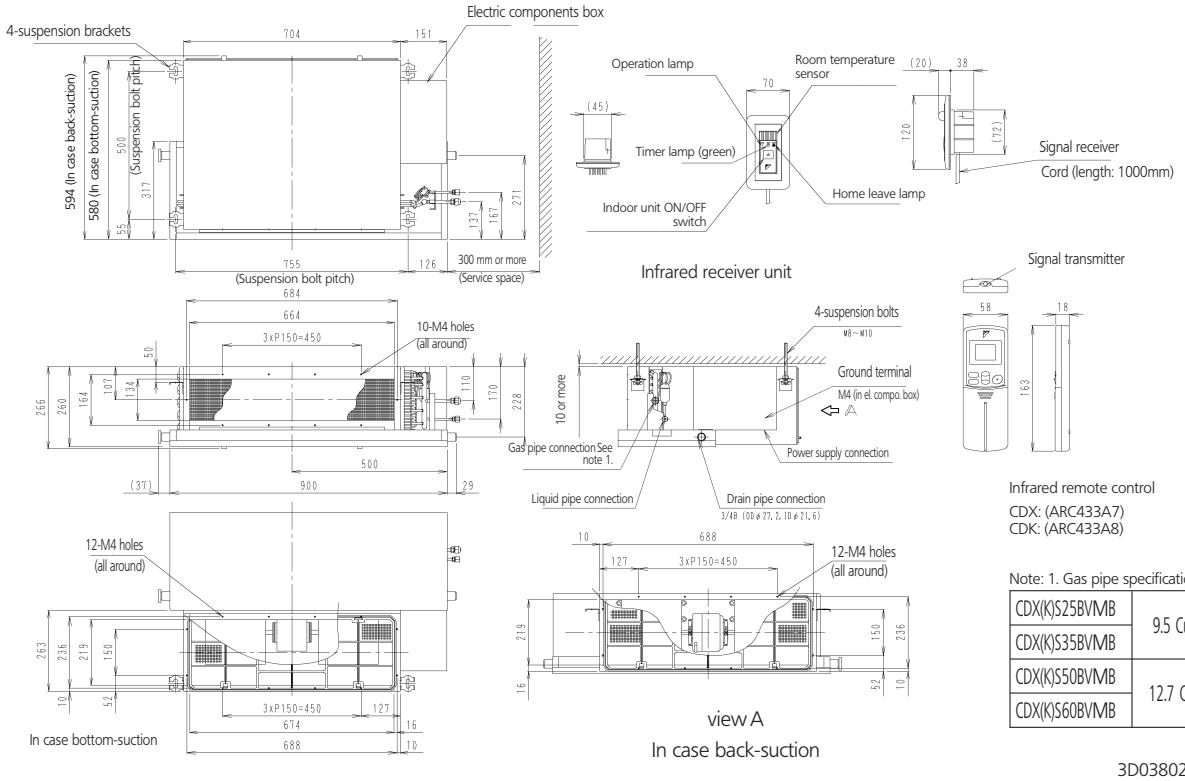
7 Energy label: scale from A (most efficient) to G (less efficient).

8 Annual energy consumption: based on average use of 500 running hours per year at full load (= nominal conditions)

3 Dimensional drawings

CDK/XS25-35-50-60B

unit (mm)



Note: 1. Gas pipe specification

CDX(K)S25BVMB	9.5 CuT
CDX(K)S35BVMB	
CDX(K)S50BVMB	12.7 CuT
CDX(K)S60BVMB	

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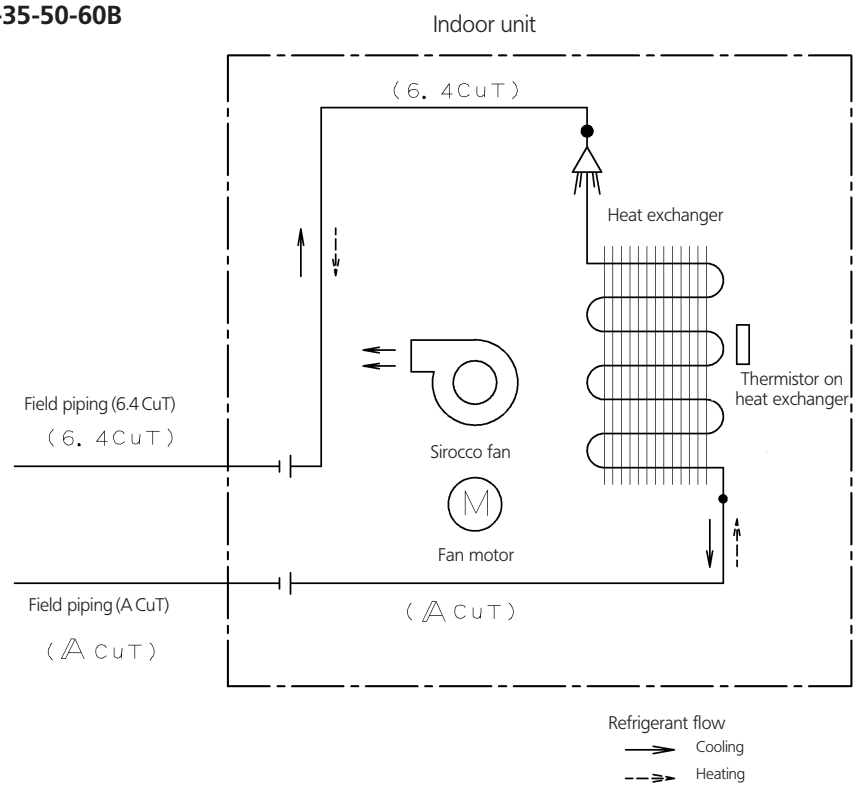
4 Piping diagrams

4

CDK/XS25-35-50-60B



Model	A
CDXS25BVMB CDKS25BVMB CDXS35BVMB CDKS35BVMB	ϕ 9.5
CDXS50BVMB CDKS50BVMB CDXS60BVMB CDKS60BVMB	ϕ 12.7

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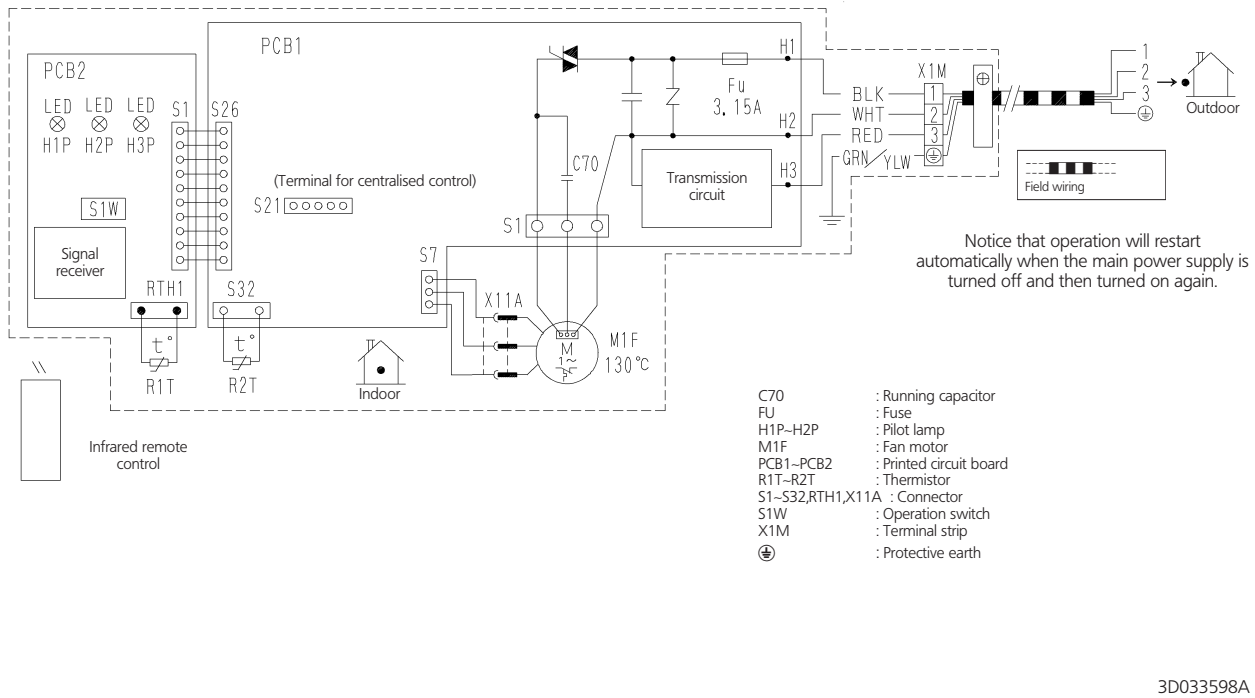
5 Wiring diagrams

CDK/XS25-35-50-60B



C70	: Running capacitor
FU	: Fuse
H1P~H2P	: Pilot lamp
M1F	: Fan motor
PCB1~PCB2	: Printed circuit board
R1T~R2T	: Thermistor
S1~S32,RTH1,X11A	: Connector
S1W	: Operation switch
X1M	: Terminal strip
⏚	: Protective earth

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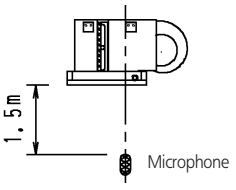
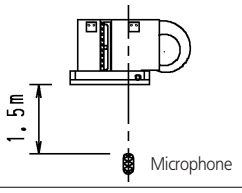
6 Sound level

6-1 Sound level data

Cooling only

Model	Sound pressure level			Measuring location	Sound power level (H)
	230V,50Hz				
	Cooling				
	H	L	SL		
CDKS25B	39	36	33		55
CDKS35B	39	36	33		55
CDKS50B	42	39	36		58
CDKS60B	44	41	38		60

Heat pump

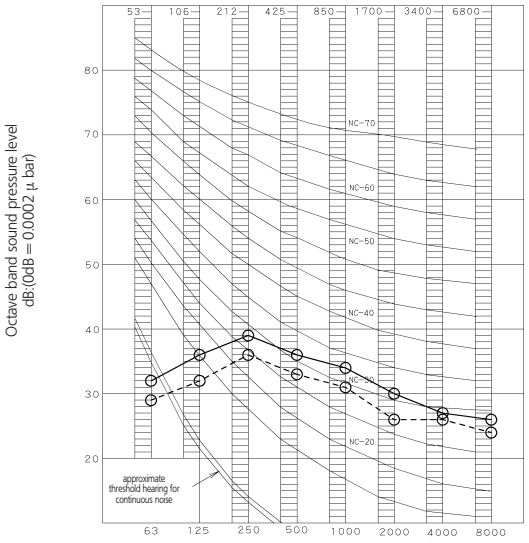
Model	Sound pressure level			Measuring location	Sound power level (H) (cooling/heating)
	230V,50Hz				
	Cooling/Heating				
	H	L	SL		
CDXS25B	39/40	36/36	33/33		55/55
CDXS35B	39/40	36/36	33/33		55/56
CDXS50B	42/42	39/38	36/35		58/58
CDXS60B	44/44	41/40	38/37		60/60

6 Sound level

6-2 Sound pressure spectrum

Cooling only

CDKS25-35B



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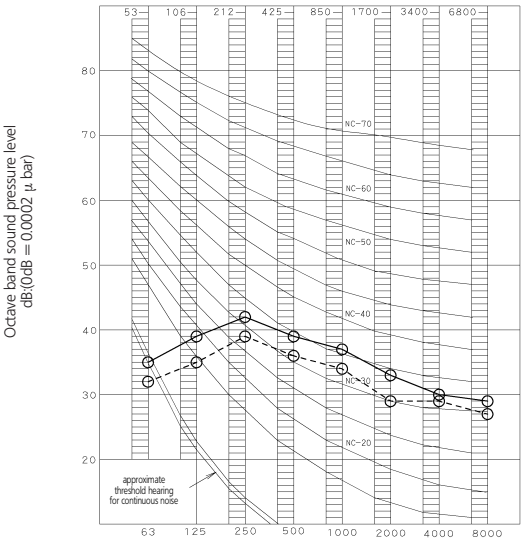
CDKS50B



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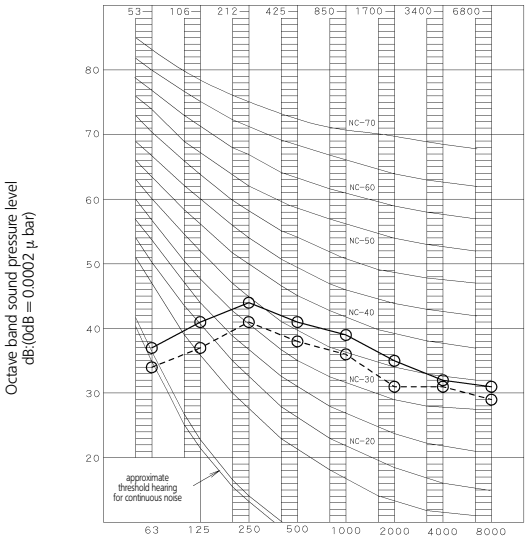
CDKS60B



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Legend

50/60Hz, 220-240/220-230V (H)
50/60Hz ,220-240/220-230V (L)

NOTES

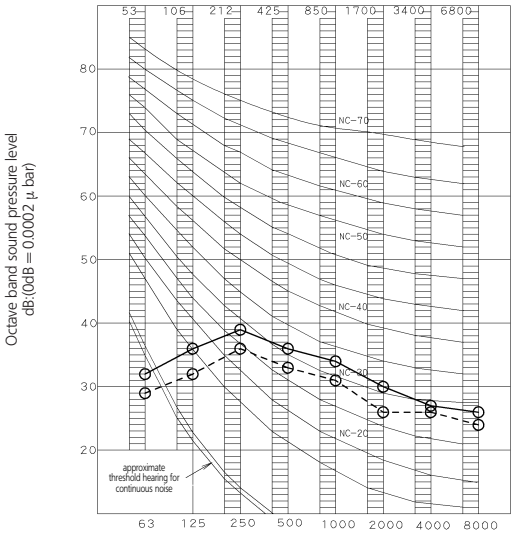
1 Operation sound is measured in an anechoic chamber.
2 Operation sound differs with operation and ambient conditions.

6 Sound level

6-2 Sound pressure spectrum

Heat pump

CDXS25-35B (Cooling)



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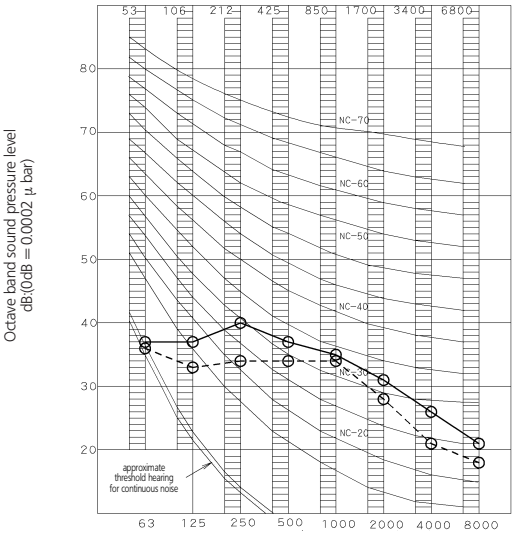
Octave band center frequency (Hz)

CDXS25-35B (Heating)



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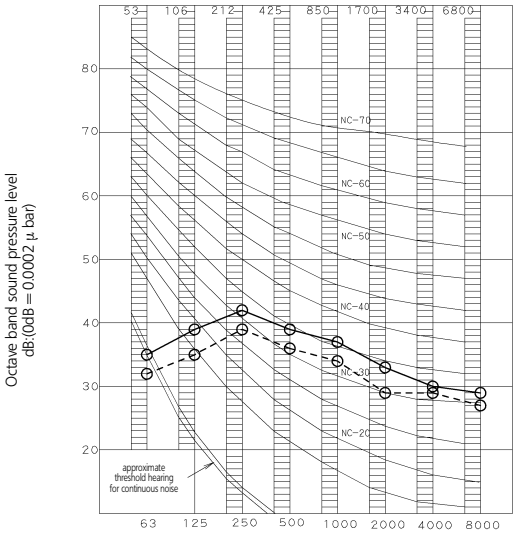
Octave band center frequency (Hz)

CDXS50B (Cooling)



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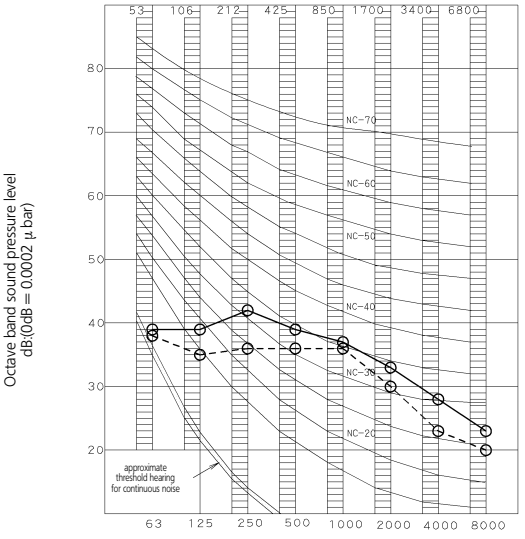
Octave band center frequency (Hz)

CDXS50B (Heating)



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Octave band center frequency (Hz)

Legend

- 50/60Hz, 220-240/220-230V (H)
- 50/60Hz ,220-240/220-230V (L)

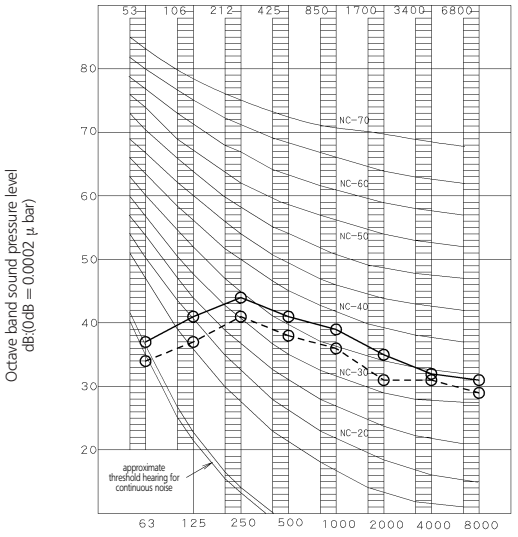
NOTES

1 Operation sound is measured in an anechoic chamber.
2 Operation sound differs with operation and ambient conditions.

6 Sound level

6-2 Sound pressure spectrum

CDXS60B (Cooling)



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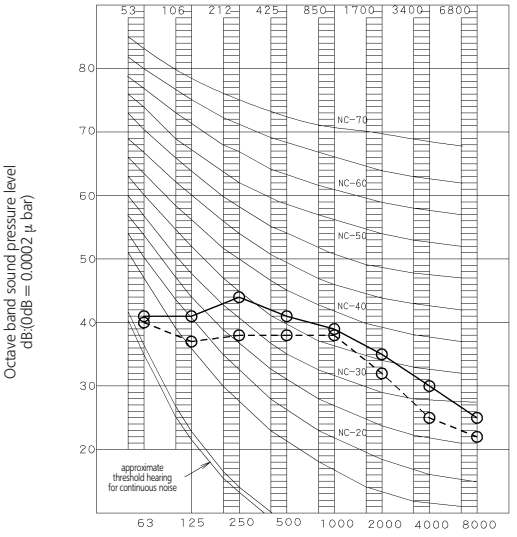
CDXS60B (Heating)



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Legend

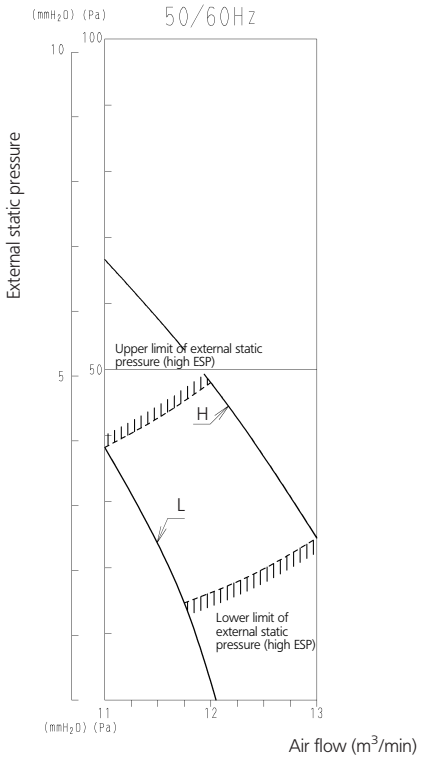
O—O 50/60Hz, 220-240/220-230V (H)
O--O 50/60Hz ,220-240/220-230V (L)

NOTES

1 Operation sound is measured in an anechoic chamber.
2 Operation sound differs with operation and ambient conditions.

7 Fan characteristics

CDK/XS25-35B



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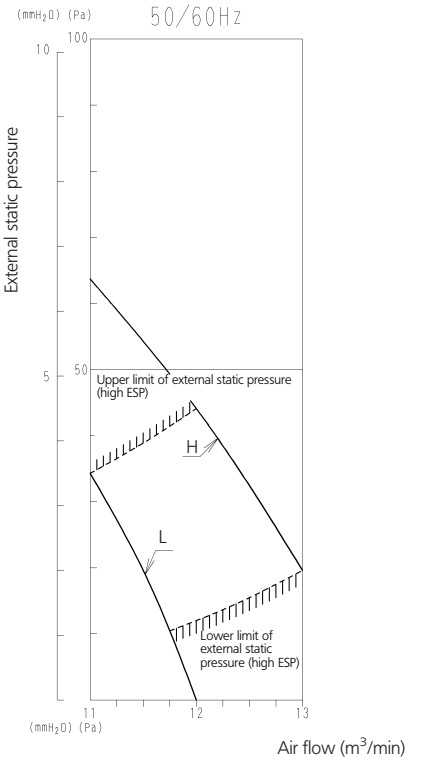
CDK/XS50B



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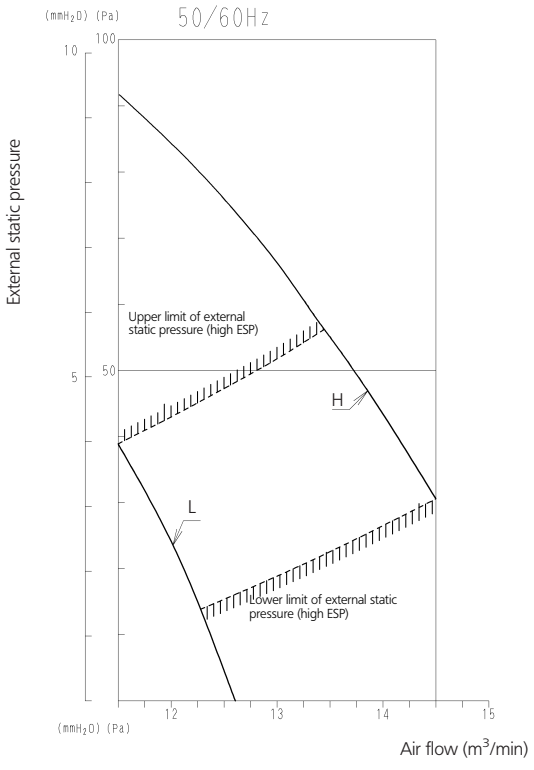
CDK/XS60B



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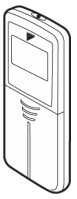
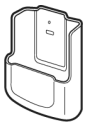
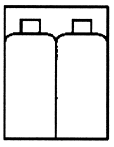
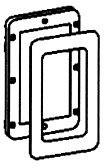
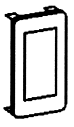
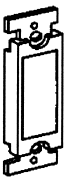
A = Upper limit of external static pressure (standard ESP)
B = Lower limit of external static pressure (standard ESP)

8 Accessories

8-1 Standard accessories

CDK/X-S

Clamp metal	Insulation for fitting	Sealing pad	Infrared remote control
1	1 of each	Large and small 1 each	1
	 For gas pipe  For liquid pipe	 Large  Small	

Remote control holder	AAA dry-cell batteries	Receiver kit				
1	2	1 set	1	1	2	
		Faceplate; faceplate frame 	Decorative cover 	Insulated mounting frame 	Screw M4 x 25 	(Other) ● Operation manual ● Installation manual

8-2 Optional accessories

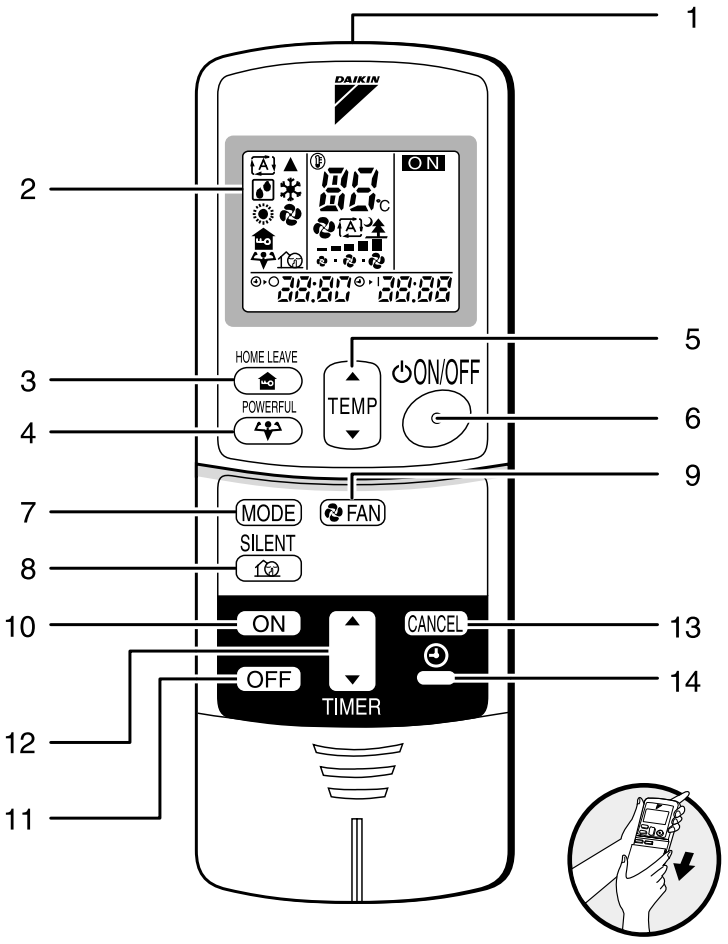
CDK/XS-B		25	35	50	60
Wiring adapter for time clock / remote control (1)	Normal open contact	KRP413A1S			
	Normal open pulse contact	KRP413A1S			
Centralised control board	Up to 5 rooms (2)	KRC72			
Central remote control		DCS302B51			
Unified ON/OFF control		DCS301B51			
Schedule timer		DST301B51			
Interface adapter (3)		KRP928A2S			
Anti-theft protection for remote control		KKF910A45			

(1) Wiring adapter supplied by Daikin. Time clock and other device: field supply.
(2) Wiring adapter is also required for each indoor unit.
(3) For DIII-NET adapter

9 Control systems

9-1 Infrared remote control

CDK/XS25-35-50-60B



<ARC433A7, A8>

1 **Signal transmitter:**
• It sends signals to the indoor unit.

2 **Display:**
• It displays the current settings. (In this illustration, each section is shown with all its displays ON for the purpose of explanation.)

3 **HOME LEAVE button:**
for HOME LEAVE operation

4 **POWERFUL button:**
for POWERFUL operation

5 **TEMPERATURE adjustment buttons:**
• It changes the temperature setting

6 **ON/OFF button:**
• Press this button once to start operation. Press once again to stop it.

7 **MODE selector button:**
• It selects the operation mode
(Auto / Dry / Cool / Heat / Fan)

8 **OUTDOOR UNIT SILENT button:**
SILENT operation

9 **FAN setting button:**
• It selects the air flow rate setting.

10 **ON TIMER button**

11 **OFF TIMER button**

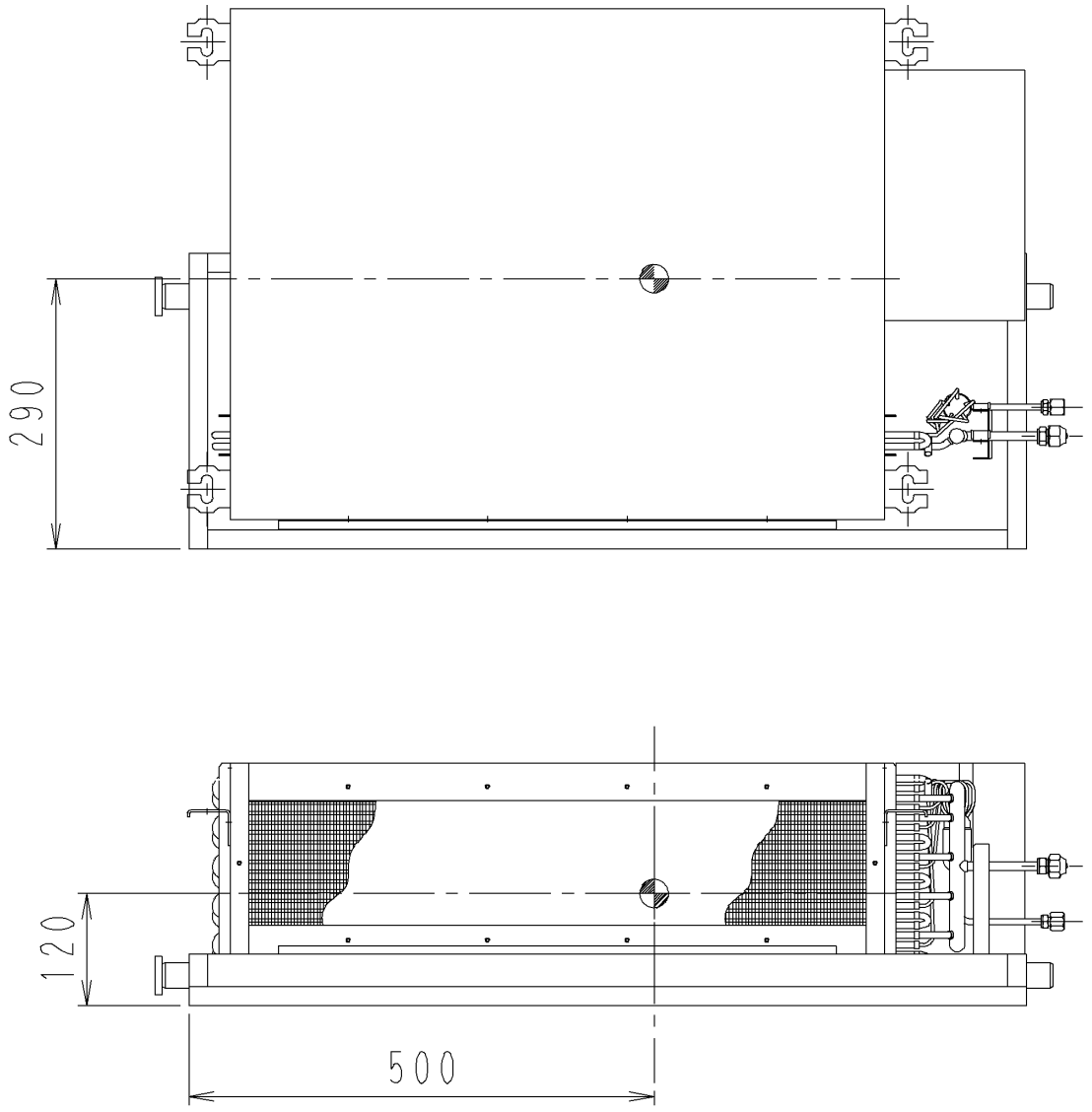
12 **TIMER setting button:**
• It changes the time setting

13 **TIMER CANCEL button:**
It cancels the timer setting.

14 **CLOCK button**

10 Center of gravity

CDK/XS25-35-50-60B



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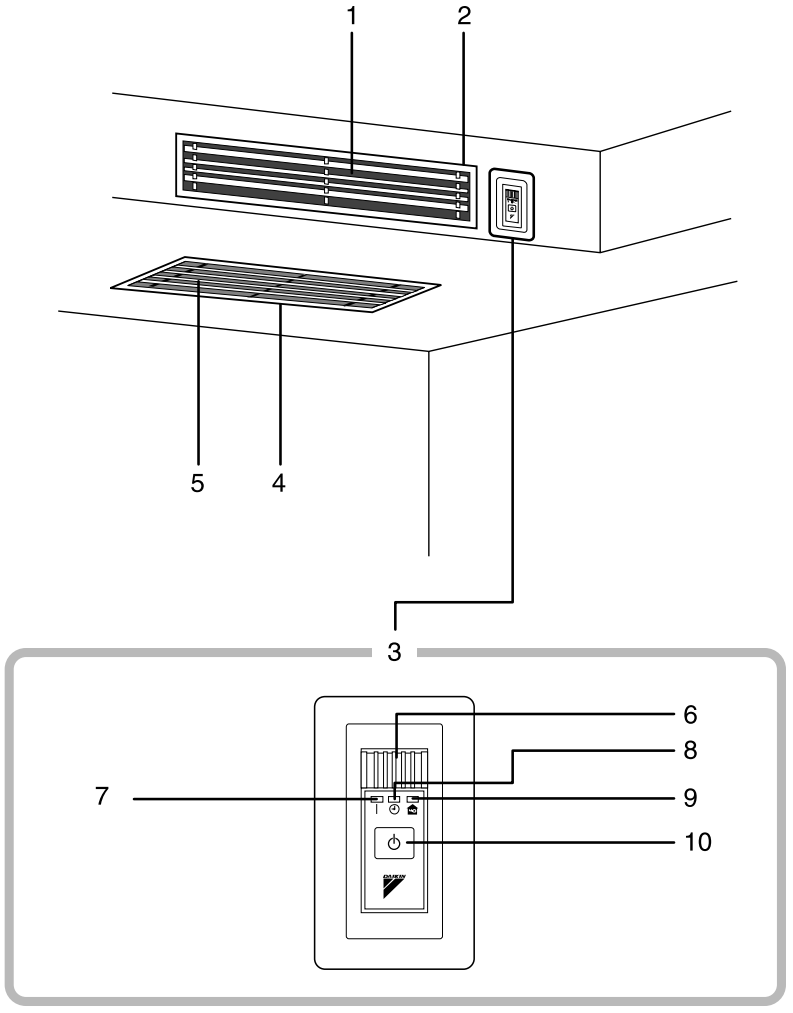
11 Installation



Indoor unit

1 **Air outlet**

2 **Air outlet grille** (Field supply)
- Appearance of the air outlet grille and air inlet grille may differ with some models.

3 **Display, Control panel**

4 **Suction grille (Option)**
- Appearance of the air outlet grille and air inlet grille may differ with some models.

5 **Air inlet**

6 **Room temperature sensor:**
- Senses the air temperature around the unit.

7 **Operation lamp (green)**

8 **TIMER lamp (yellow)**

9 **HOME LEAVE lamp (red)**
- Lights up when you use HOME LEAVE operation.

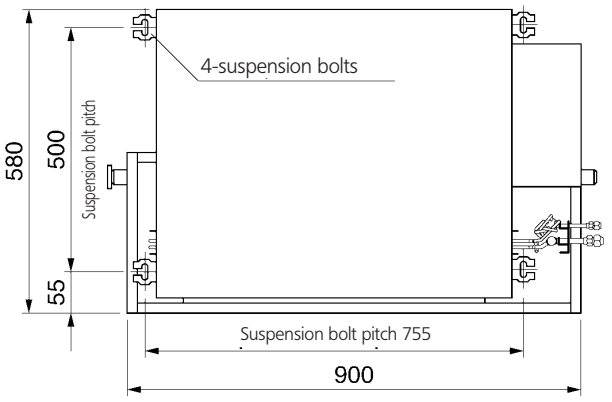
10 **Indoor unit ON/OFF switch**
- Push this button once to start operation. Push once again to stop it.
- This switch is useful when the infrared remote control is missing.

• The operation mode refers to the following table.

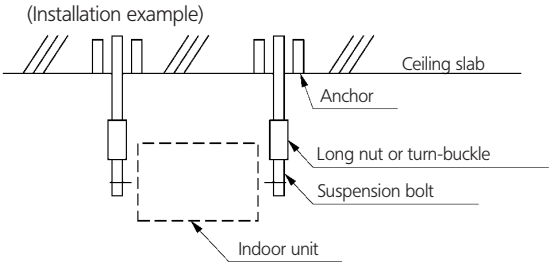
	Mode	Temperature setting	Air flow rate
CDKS	Cool	22 °C	AUTO
CDXS	AUTO	25 °C	AUTO

11 Installation

- **Relation of the unit to the suspension bolt positions**

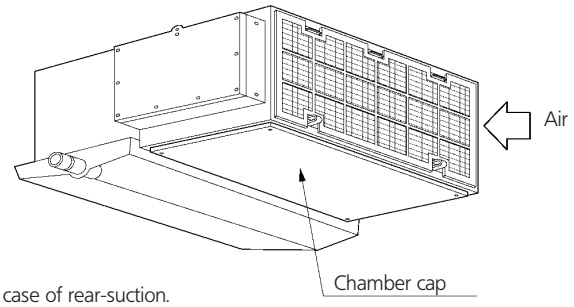


- **Install the suspension bolts**
  (Use M10-size bolts for the suspension bolts.)
  In order to reinforce the ceiling bearing the weight of the unit, use anchors when installing onto an existing ceiling or use sunken inserts, sunken anchors or other commercially available parts when installing onto a new ceiling.

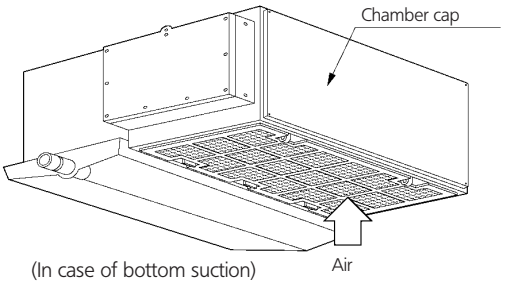


Note: All of the above parts are commercially available.

- **Mount chamber cap**



In case of rear-suction.
(When shipped)

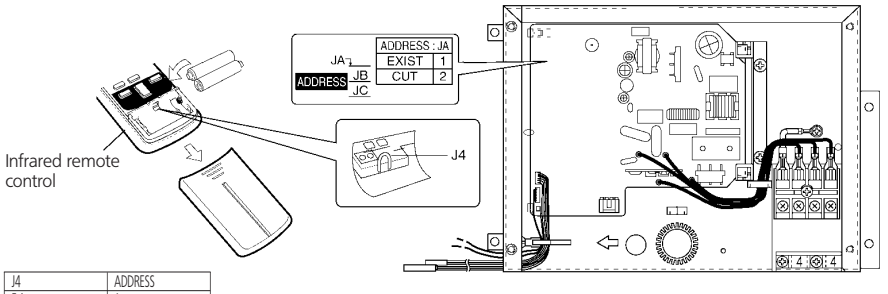


(In case of bottom suction)

- When two indoor units are installed in one room, one of the two infrared remote controllers can be easily set for another addresses.

PCB in the indoor unit
- Cut the jumper JA on PCB

Infrared remote control
- Cut the jumper J4



J4	ADDRESS
Exist	1
Cut	2